

Technique for Radiometer and Antenna Array Calibration with Two Antenna Noise Diodes

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This paper presents a new technique to calibrate a microwave radiometer and phased array antenna system. This calibration technique uses a radiated noise source in addition to an injected noise sources for calibration. The plane of reference for this calibration technique is the face of the antenna and therefore can effectively calibration the gain fluctuations in the active phased array antennas. This paper gives the mathematical formulation for the technique and discusses the improvements brought by the method over the existing calibration techniques.

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